

AMENDMENTS TO THE CLAIMS

40. (Currently amended) A method for preparing a biopsy sample of tissue containing malignant cells for chemosensitivity testing, comprising:
- (a) obtaining a tumor specimen containing malignant cells and unwanted cells, wherein said malignant cells are susceptible of overgrowth of said unwanted cells;
  - (b) mechanically separating said specimen into cohesive multicellular particulates having a size of about 0.25-1.25 mm<sup>3</sup>;
  - (c) growing a tissue culture monolayer from said cohesive multicellular particulates without overgrowth of said unwanted cells;
  - (d) inoculating malignant cells from said monolayer into a plurality of segregated sites;
  - (e) treating said plurality of sites with at least one agent;
  - (f) examining said plurality of sites; and
  - (g) assessing chemosensitivity of the cells in said plurality of sites; and
  - (h) monitoring culture medium in which said monolayer is grown for production of soluble secreted factors indicative of a disease state or lack thereof.

41. (Original) The method according to claim 40 wherein said agent is at least one agent selected from the group consisting of chemotherapeutic agents, radiation therapy agents, radiation therapy sensitizing agents, radiation therapy desensitizing agents, immunotherapeutic agents, gene therapy agents, combination chemotherapeutic agents, hormone therapy agents, wound healing agents, and differentiating agents.

42. (Original) The method according to claim 40 wherein said plurality of segregated sites further comprises a plate containing a plurality of wells therein.

43. (Original) The method according to claim 42 wherein said cells in step (d) are prepared in suspension prior to inoculation into said plurality of wells.

44. (Cancelled)

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6. (Currently amended) The method according to claim ~~4440~~ wherein said agent is a gene therapy agent and further said gene therapy agent comprises an antisense oligonucleotide.

7. (Currently amended) The method according to claim ~~4440~~ wherein said soluble secreted factors are cellular markers, secreted factors or tumor antigens.

8. (Currently amended) The method according to claim ~~4440~~ wherein said soluble secreted factors are selected from the group consisting of plasminogen activator inhibitors type 1, urokinase-type plasminogen activator, alpha-fetoprotein, carcinoembryonic antigen, transforming growth factor alpha, transforming growth factor beta, and major histocompatibility complex.

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